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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,772	04/12/2006	Rachid El Waffaoui	NL03 1251 US1	3810
65913	7590	08/30/2007	EXAMINER	
NXP, B.V. NXP INTELLECTUAL PROPERTY DEPARTMENT M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131			NGUYEN, PATRICIA T	
			ART UNIT	PAPER NUMBER
			2817	
			NOTIFICATION DATE	DELIVERY MODE
			08/30/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

# Office Action Summary

Application No.

10/575,772

Applicant(s)

EL WAFFAOUI, RACHID

Examiner

Patricia T. Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4 and 9 is/are rejected.
- 7) ☒ Claim(s) 3 and 5-8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4/12/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Main, U.S. Patent # 4,728,815.

Fig. 4 of Main discloses a circuit comprising: An electronic circuit for amplification of a bipolar current signal (current at terminal 60 to junction of emitters of transistors 82 and 88), the electronic circuit comprising a pair of complementary current mirrors (74, 76), the current mirrors being interconnected at an input terminal (junction of emitters of transistors 82 and 88) and at an output terminal (node 70 at junction of collectors of transistors 80 and 86), wherein a first complementary current mirror (74, PNP current mirror) of the pair of complementary current mirrors is active when a positive current signal is applied and wherein the second complementary current mirror (76, NPN current mirror) of the pair of complementary current mirrors is active when a negative current signal is applied at the input terminal.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Main, U.S. Patent # 4,728,815.

Fig. 4 of Main discloses a circuit comprising: an ultrasound receiver for providing an ultrasound bipolar current signal (current at terminal 60 to junction of emitters of transistors 82 and 88), a pair of complementary current mirrors (74, 76), the current mirrors being interconnected at a first terminal (junction of emitters of transistors 82 and 88) and at a second terminal (node 70 at junction of collectors of transistors 80 and 86), the first terminal being coupled to the ultrasound receiver for receiving the ultrasound bipolar current signal, wherein a first current mirror (74, PNP current mirror) of the pair of complementary current mirrors is active during a positive swing of the ultrasound bipolar current signal while a second current mirror of the pair of complementary current mirrors is off, and wherein the second current mirror (76, NPN current mirror) is active during a negative signal swing of the ultrasound bipolar current signal while the first current mirror is off.

Although Main does not mention about an ultrasound receiver for providing an ultrasound bipolar current signal, the ultrasound receiver is just an intended use for the circuit of Main; therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to use the circuit of Main in an ultrasound apparatus to receive an ultrasound bipolar current as an input current for the circuit of Main in order to have a practical use for the circuit.

Claims 1, 4, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Theus, U.S. Patent # 5,654,629.

Fig. 3 of Theus discloses a circuit comprising: An electronic circuit for amplification of a bipolar current signal (current  $i_d$  at node  $k_2$ ), the electronic circuit comprising a pair of complementary current mirrors (transistors 44, 46 and transistors 48, 50), the current mirrors being interconnected at an input terminal ( $k_2$ ) and at an output terminal ( $k_4$ ), wherein a first complementary current mirror (transistors 44, 46) of the pair of complementary current mirrors is active when a positive current signal is applied and wherein the second complementary current mirror (transistors 48, 50) of the pair of complementary current mirrors is active when a negative current signal is applied at the input terminal.

Regarding claim 4, current sources having currents  $i_6$ ,  $i_8$  connect to transistors 44, 48 and transistors 56, 62 can be read as degeneration resistors because it is well known in the art that current sources and transistors have some resistances and can act as resistors.

Regarding claim 9, although Theus does not mention about an ultrasound receiver for providing an ultrasound bipolar current signal, the ultrasound receiver is just an intended use for the circuit of Theus; therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to use the circuit of Theus in an ultrasound apparatus to receive an ultrasound bipolar current as an input current for the circuit of Theus in order to have a practical use for the circuit.

***Allowable Subject Matter***

Claims 3 and 5-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patents # 5,614,866, # 5,455,533, # 5,399,991, and # 4,045,747 contain some limitations of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia T. Nguyen whose telephone number is (571) 272-1768. The examiner can normally be reached on 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on 571-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Patricia Nguyen*

PTN

August 24, 2007

Primary Examiner  
AU 2817

/Patricia Nguyen/